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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/519,727	03/03/2000	Kok-Wui Cheong	STFUP014	6703

7590 01/24/2005

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EXAMINER	
CORRIELUS, JEAN B	
ART UNIT	PAPER NUMBER
2637	

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/519,727	CHEONG ET AL.	
	Examiner	Art Unit	
	Jean B Corrielus	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 October 2004*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-4,6-24,28 and 29* is/are allowed.

6)☒ Claim(s) *5,25 and 30* is/are rejected.

7)☒ Claim(s) *26,27,31 and 32* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Objections

1. Claims 27and 32 are objected to because of the following informalities: claim 27, what does "reaching a plateau" mean? The same comment applies to claim 32. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 30 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "sufficiently" in claims 5 and 30 is a relative term which renders the claim indefinite. The term "sufficiently" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al US Patent No. 5,594,756.

As per claim 5, Sakurai teaches a method and apparatus comprising receiving an input signal that includes a primary data signal and an interference portion see col. 1, lines 14-26; iteratively computing an estimate (probable) of the interference portion using estimator 80 (note that the noise portion is iteratively computed because of the presence of the feedback path); calculating the data signal based on at least in part upon the iteratively computed estimate (probable) interference portion see col. 1, lines 48-53. Note that in order for the superimposed interference (crosstalk) to be removed or canceled from the received signal, the estimate (probable) interference (crosstalk) inherently has to be as close as possible to the superimposed interference (crosstalk). Sakurai does not explicitly teach that the interference signal is a crosstalk signal. Cross talk signal, however, is well known in the art as a type of interference signal if left uncompensated for could cause distortion in the original signal. Given that, it would have been obvious to one skill in the art to modify Sakurai in such a way as to provide compensation for cross talk signal so as to ensure that the reconstructed signal is as closed as possible to the original signal.

Claim 30 is rejected similarly as claim 5, as both include similar limitations.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakurai et al US Patent No. 5,594,756 in view of applicant's background of the invention.

As applied to claim 5 above, Sakurai discloses every feature of the claimed invention but does not explicitly teach that the crosstalk is from a home phone network alliance signal. However, applicant's background of the invention, page 3, line 26-page 4, line 3, teaches that the HPNA is a well-known source of crosstalk interference. It would have been obvious to one skill in the art to provide compensation for the interference generated by HPNA signals so as to improved signal quality.

Allowable Subject Matter

8. Claims 1-4, 6-24 and 28-29 are allowed.

9. Claims 26, 27, 31 and 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 10/12/04 have been fully considered but they are not persuasive. It is alleged that there is no motivation to combined the cited teaching in the manner asserted. Examiner disagrees. As stated previously in the last office action, crosstalk are a type of interference if left uncompensated for would affect signal quality, hence the motivation to cancel interference or cross talk from a received signal is to improve signal quality. It is further stated that

there is no evidence provided in the cited art that a skill in the art using the teaching of the cited reference would employ the HPNA to resolve in-home phone line based networking problems. However, such teaching is not wholly identified in the claims. However, for the sake of arguments, note that any sources of interference (crosstalk) whether "HPNA signals", sound of motor vehicle or the like, must be dealt with. And the motivation to do so will always be to "improve signal quality", regardless of the source(s).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Corrielus whose telephone number is 571-272-3020. The examiner can normally be reached on Maxi-Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-3086. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jean B Corrielus
Primary Examiner
Art Unit 2637
1/20/05